

## Campus Surveillance Solution

Zhejiang Uniview Technologies Co., Ltd. is the pioneer and leader of IP video surveillance. Heritages profound IT technologies, we founded independently in December, 2011. We are the third largest manufacturer in the overall video surveillance market in China and 6<sup>th</sup> in global market. We insist on open cooperation, focusing on high quality and improving innovation ability.

Product Line:

Network Camera, NVR, IP Storage, Decoder, Keyboard, Switch, Monitor and Network Cable



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# CAMPUS SURVEILLANCE SOLUTION



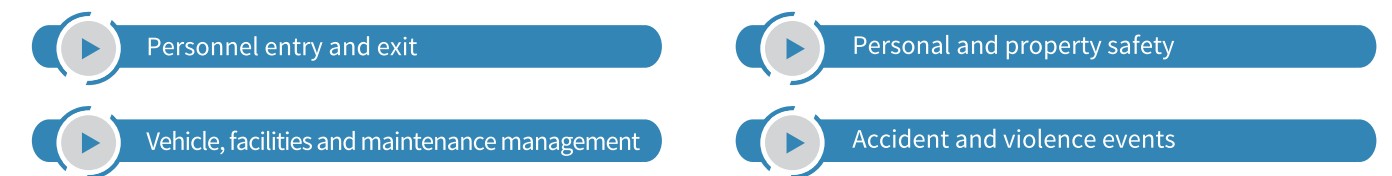
# CHALLENGES & SOLUTION

With the rising of IoT, there are many possibilities and options to traditional campus management. It enables the measures of campus management to be more flexible, comprehensive and efficient that campus would not be restricted by geographical location.

Based on scenes, campus surveillance applications can be further divided into: college campus, residential complexes, commercial parks, public venues etc. Uniview has been dedicated to the surveillance industry for years, accumulated experience and knowledge on varied campus scenes, and presented comprehensive, flexible, efficient and affordable campus surveillance solutions which can be applied to all kinds of campus-related surveillance scenes. In terms of special applications, Uniview can also provide solutions to support.

## SOLUTION OVERVIEW

# Challenges



# Solutions

- 01 Visualized central management with an all-in-one and easy-to-use smart platform
- 02 Integrating with sub-systems such as third-party access control and vehicle management etc.
- 03 Various smart detection functions such as intrusion, crossing line detection etc., can detect and prevent abnormal events
- 04 High-efficient, full-time HD monitoring in whole campus areas
- 05 Integrating with E-map, linked alarm, two-way audio and broadcast functions etc. to coordinate a response and make instant communication
- 06 Multiple management software and remote access for incidents investigation and suspects identification
- 07 High availability functions prevent data loss caused by deliberate tampering or other monitoring interruptions



# CAMPUS LAYOUT

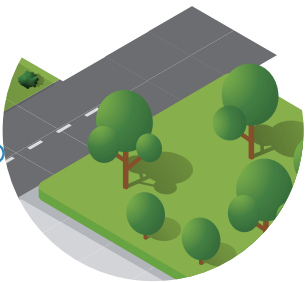
PUBLIC AREA , INTERIOR AREA,  
WAREHOUSE & FACILITIES



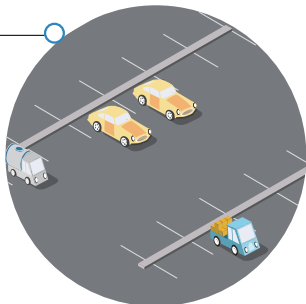
ENTRANCE & LOBBY



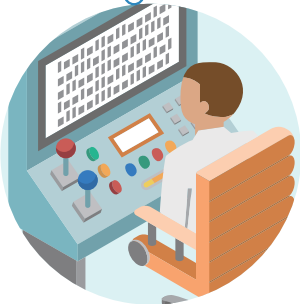
TRUNK ROAD



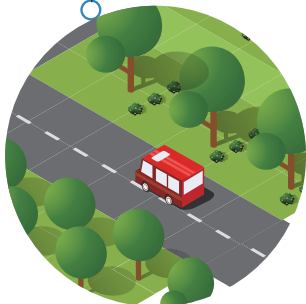
PARKING LOT



MANAGEMENT CENTER



PERIMETER PROTECTION



# FEATURES

## ENTRANCE& LOBBY



Lobby is not only the main area for entrance and exit, but also the key area where staff frequently interact with visitors. In order to monitor lobby clearly, cameras need to adapt to various scenes and different campus layouts.

### WDR

UNV WDR cameras combine Sony STARVIS sensor technology with our self-developed ISP processing technology to fully utilize sensor's potential and imaging performance, deliver clear and visible images under high-contrast lighting condition.



WDR ON



WDR OFF

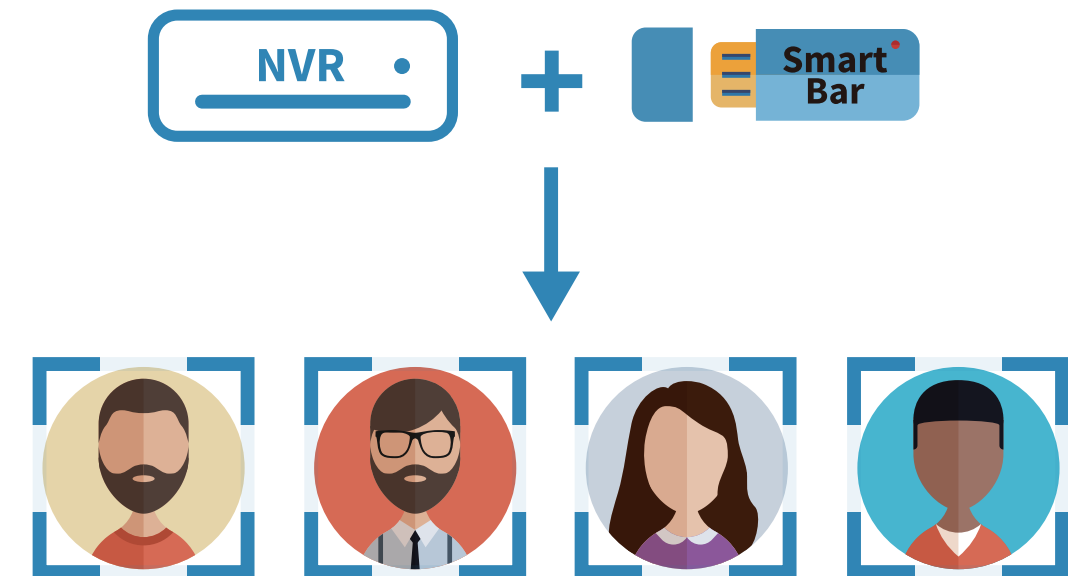
### 4K fisheye

4K fisheye cameras are ideal for sites with high floor height, large and wide areas such as lobby. UNV 4K fisheye fixed dome supports ceiling, wall and desktop mounting modes. It provides up to 16 kinds of de-warping modes including panoramic view interacted with UNV NVR and EZVMS.



## Face Detection & Face Recognition

Integrated with blacklist/whitelist filtering, Face Detection and Face Recognition (realized in a Smart Bar) functions enable UNV cameras to spot a target person and send alarms instantly to the campus management center.



## PUBLIC AREA , INTERIOR AREA, WAREHOUSE & FACILITIES



Interior areas such as offices, canteen etc. warehouse and high-security facilities , have different feature and monitoring needs. A comprehensive and sophisticated campus surveillance solution needs to adapt to different scenes accordingly, so that these areas or facilities can be monitored clearly.

## Smart Detections - Intrusion, Defocus, Scene Change & Audio Detection

By implementing intrusion detection in controlled areas such as balconies, pipe shaft, electricity distribution rooms etc.,UNV cameras are enabled to prevent unauthorized access and deliver alert reminder.

By implementing Defocus and Scene Change Detection in critical areas such as accounts offices, file rooms and storage rooms, UNV camera can prevent data loss by deliberate tampering or other monitoring interruptions.

Most smart detections are based on visual clues to detect abnormal situations, while in some situations, audio information (sudden audio change) is regarded as a better proof to detect a given event.



Implementing Audio Detection at warehouse or other areas listed above enables UNV cameras to provide all-round protections on building asserts.

UNV cameras support various audio detection types, including Sudden Rise, Sudden Fall, Sudden Change and Threshold.



Smart IR

Smart IR is an intelligent IR adaption control technology which can balance the luminance level between distant and nearby area, so that the cameras is able to provide consistently clear image under low Lux scenes.



Smart IR ON

Smart IR OFF

Certain models of UNV bullet cameras with LED Infrared enable the IR illumination to reach up to 200m (656ft). UNV PTZ dome cameras with LED Infrared enable the IR illumination to reach to 250m (820ft), and UNV Laser IR PTZ cameras can even reach up to 500m (1640ft).

UNV cameras can satisfy different illumination requirements for almost any campus scenarios application.

Corridor Mode

There is a great waste on conventional 16:9 image display format in terms of long and narrow areas. UNV Corridor Mode helps to effectively reduce invalid monitoring regions and shows more details in the important monitoring area. Both

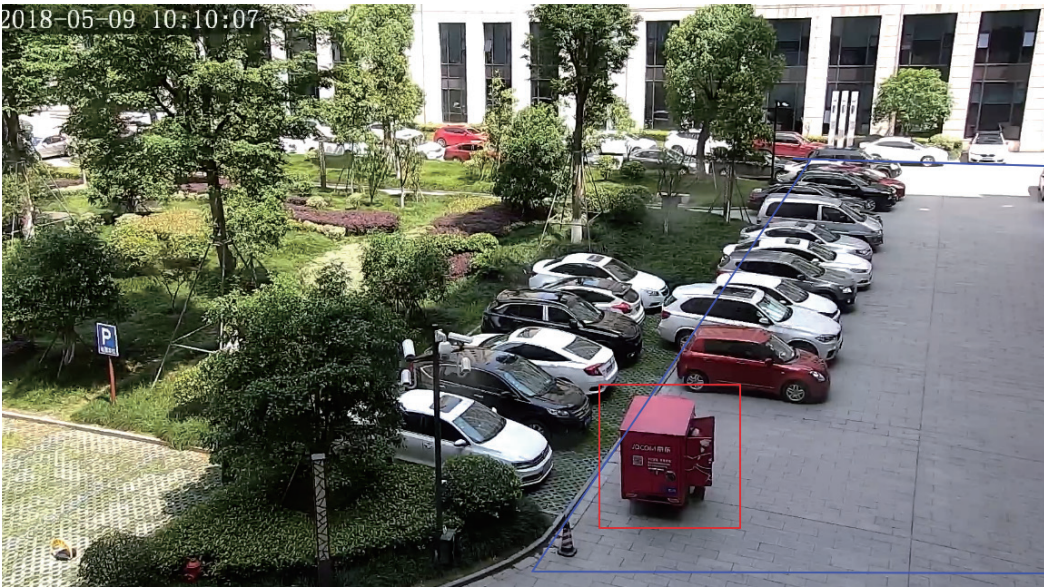
UNV NVRs and EZVMS support live view and playback display in corridor mode.



TRUNK ROAD

Smart Detections-Intrusion Detection and Crossing Line Detection

Intrusion Detection and Crossing Line Detection can be set at trunk road in campus, it enables security guards to improve management level on vehicle parking, to prevent parking disorderly or vehicle retrograde behavior.





HLC

High intensity light such as vehicle headlight, will cause over-exposure in monitoring areas at night. High light compensation (HLC) function could effectively reduce the over-exposure of image and show more details of vehicles or other objects at night.



HLC ON



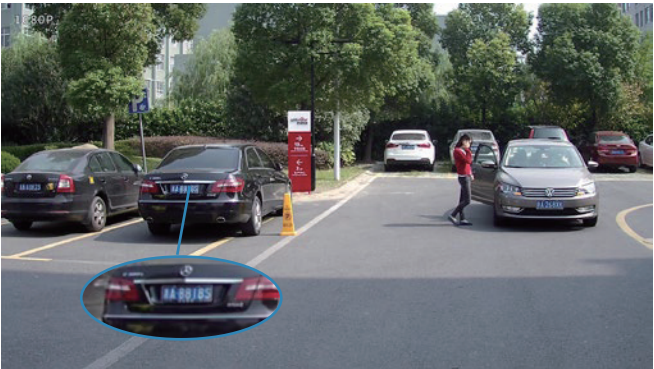
HLC OFF

4K Camera

UNV 4K cameras can provide clear and abundant details of monitoring areas with excellent high resolution performance. UNV 4K cameras can be deployed at tall buildings to cover campus-wide area with full-time HD monitoring, it enables security guards and campus manager to coordinate a response for accidents more flexible and convenient.



4K Resolution



1080P Resolution

High Ratio Optical Zoom

UNV outdoor PTZ dome cameras can reach up to 38x/44x optical zoom. It is ideal for large parking lots, large open warehouses, common community areas etc.



22x

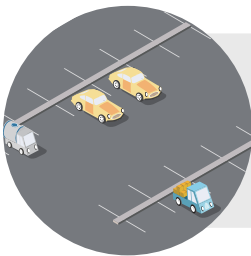


38x



44x

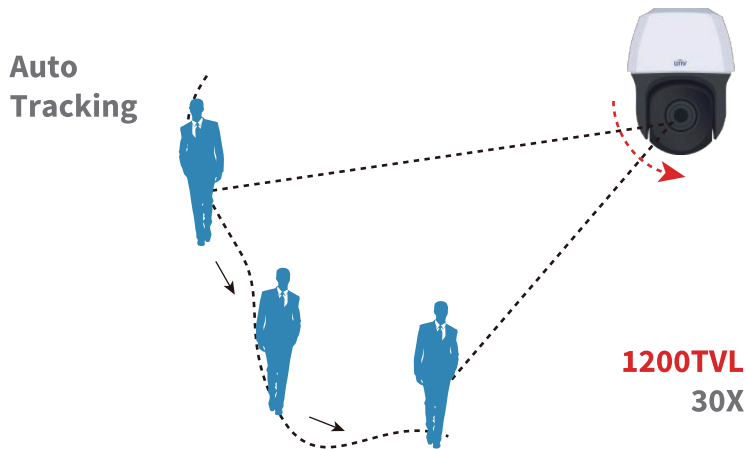
LPR AND PARKING LOT



UNV PTZ dome cameras are able to configure preset positions and design an automatic guard patrol route. It effectively monitors large parking lots to provide full-time protection for vehicles and value property of visitors and staff. In addition, LPR cameras can manage entrance and exit of authorized vehicles by integrating with blacklist/whitelist filtering function.

Auto Tracking

With the help of video context analysis, the suspects can be recognized and the criminal behavior can be tracked by UNV PTZ dome camera. In the meantime, alarms with detailed information will be sent to be police station or management control center.





LPR Camera

With built-in computing software, license plate capture (LPR) camera can identify and record license plates on still or moving vehicles. It is useful for vehicle access control or parking management applications.

Face RecognitionVehicle Control

Vehicle Control

Select

Name

☒ IP Camera 02

☐ IP Camera 13

2018-04-04 10:48:42

Snapshots

Capture Filter: All Cameras

Capture Time	License Plate No.	Vehicle Color	Plate Color	Camera	Database ID
2018-04-04 10:48:42	87		Blue	D1	001

Vehicle

Chart

Table

☐ Camera

D1

2018-04-04 10:30:29

02

Other

Blue

Play

D1

2018-04-04 10:31:37

08

Other

Blue

Play

D1

2018-04-04 10:31:37

80

Other

Blue

Play

D1

2018-04-04 10:34:16

09

Other

Blue

Play

D1

2018-04-04 10:34:17

09

Other

Blue

Play

D1

2018-04-04 10:34:18

09

Other

Blue

Play

D1

2018-04-04 10:34:21

22

Other

Blue

Play

D1

2018-04-04 10:34:22

30

Other

Blue

Play

D1

2018-04-04 10:34:27

57

Other

Blue

Play

D1

2018-04-04 10:34:29

88

Other

Blue

Play

D1

2018-04-04 10:34:34

19

Other

Blue

Play

D1

2018-04-04 10:34:35

5H

Other

Blue

Play

D1

2018-04-04 10:34:37

2A

Other

Blue

Play

D1

2018-04-04 10:34:40

22

Other

Blue

Play

D1

2018-04-04 10:34:42

59

Other

Blue

Play

D1

2018-04-04 10:35:02

01

Other

Blue

Play

D1

2018-04-04 10:35:16

03

Other

Blue

Play

Total: 128 Page: 1/2

Backup

Cancel

PERIMETER PROTECTION

UNV outdoor cameras are resistant to all kinds of weather conditions and vandalisms with 4K, Super Starlight, Smart IR (200m/ 656ft) and various smart detection functions such as Intrusion Detection, Crossing Line Detection, Audio Detection and so on. All of these features can be used to secure a campus's perimeter area.

Super Starlight

The UNV Super Starlight camera series, embedded with F1.2 aperture lens and Sony STARVIS image sensor, provide colorful and detailed video images under ultra-low light conditions (0.0005Lux), It adapts to both outside and low light environment.

Super Starlight

Common Starlight

Crossing Line Detection

Intrusion Detection can be set at perimeter areas to prevent unauthorized entry.

Moreover, Crossing Line Detection can be set for single-direction passage at a perimeter. When UNV cameras detect a crossing line behavior, it will notify the management center immediately to handle the abnormal situation.

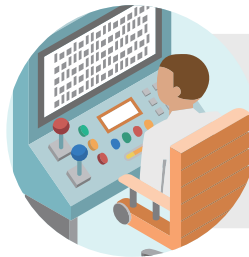
Intrusion Detection

Crossing line Detection

11/12

Campus Surveillance solution

## MANAGEMENT CENTER



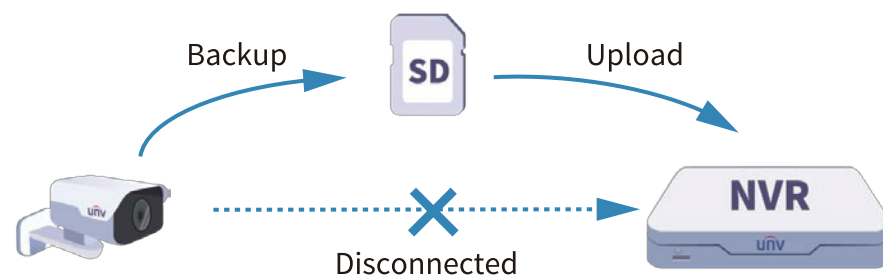
Management Center is the main place for security guards and campus managers to check live view and playback through Video Wall, PC workstation and other display devices. Also it is the place to verify alarms and coordinate a response through various platforms such as EZVMS CS Client.

### System Stability & Data Safety

UNV devices are designed with various high availability functions to ensure consistent monitoring and recording, as well as preventing data loss from unforeseen devices' errors and protecting customers' privacy.

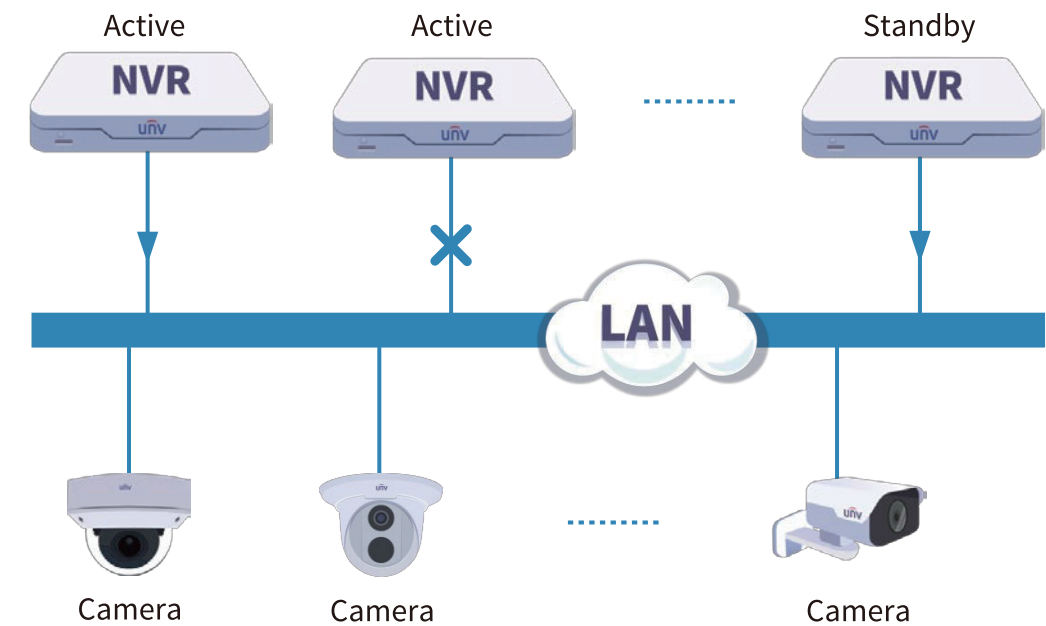
#### 1. System Stability

- During the period of Auto Network Recovery (ANR), UNV cameras can automatically store video recordings into the camera's SD card. Once the network is restored, it will automatically send video recordings back to storage server. Campus managers will not lose any important video recording, even network fails temporarily.

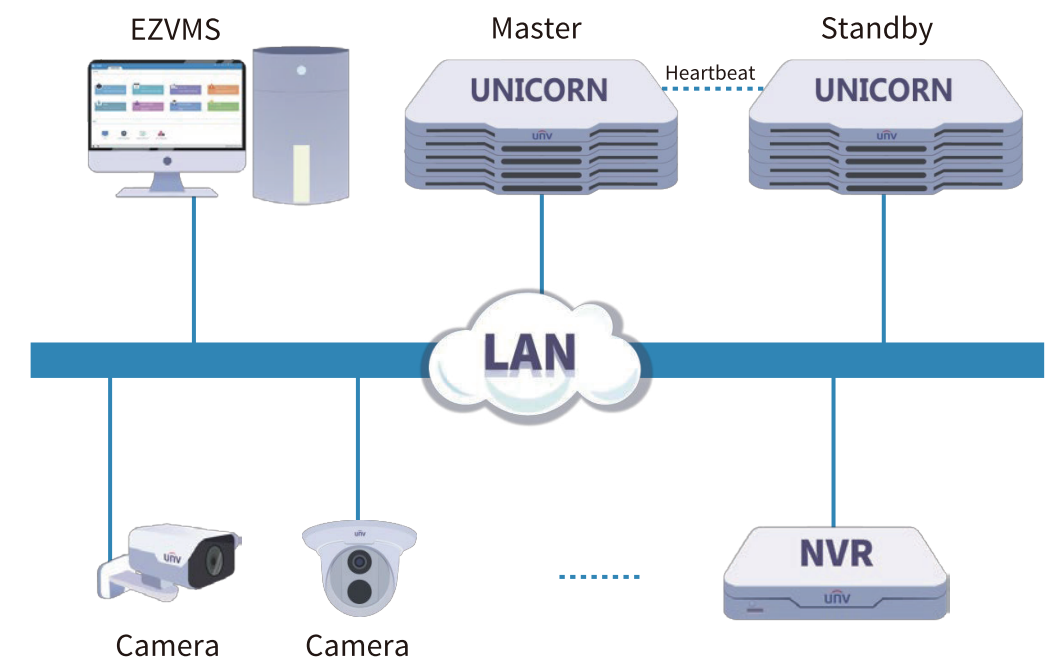


- Multiple RAID (Redundant Arrays of Independent Disks) Modes (RAID 0/1/5/6/10/50/60), are built into UNV NVRs and storage servers for better data reliability and higher data safety.
- Certain UNV NVRs and UNV Unicorn are deployed with Redundant Power Supply to ensure continuous service when power supply failover occurs

- UNV NVRs are deployed with N+1 hot backup capability. In the same networking system, if any active NVR is out of service, the Standby NVR will automatically take over services.



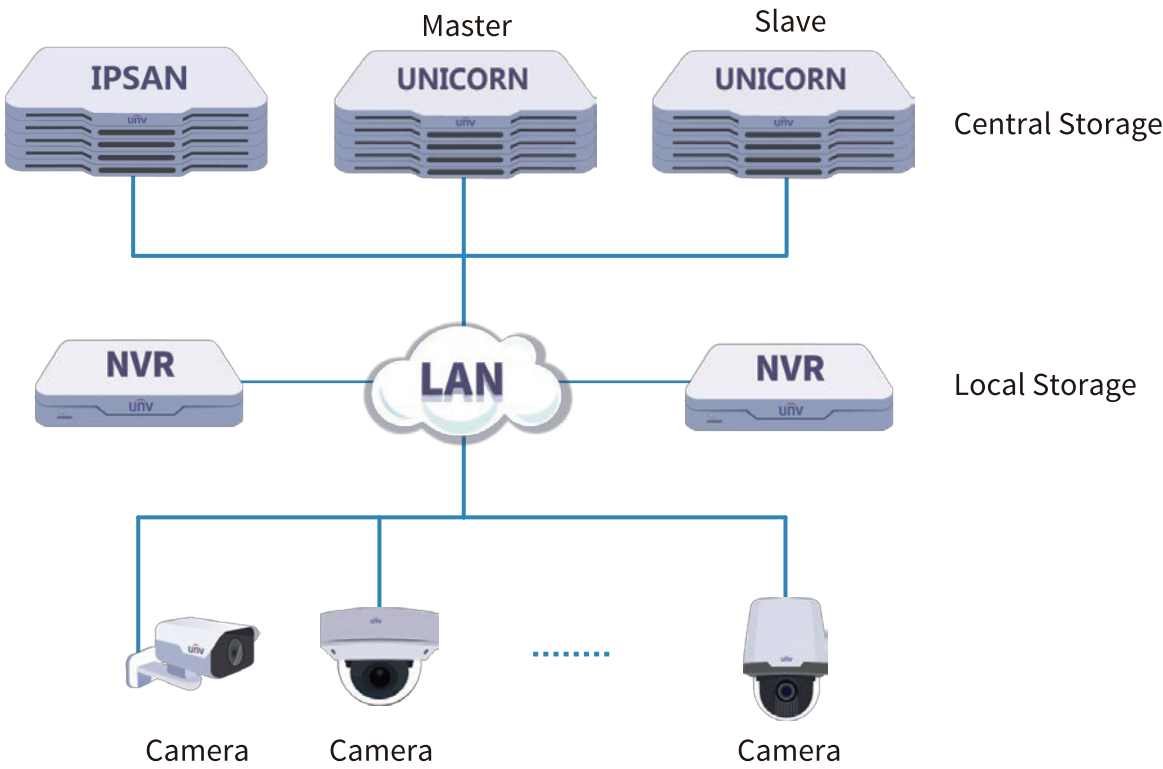
- UNV Unicorn can be deployed with a Hot Spare capability. If the Master Unicorn fails down, the Standby Unicorn will take over service immediately. All service and data will transfer back to Master Unicorn when it recovers from failure.





2.Date Safety

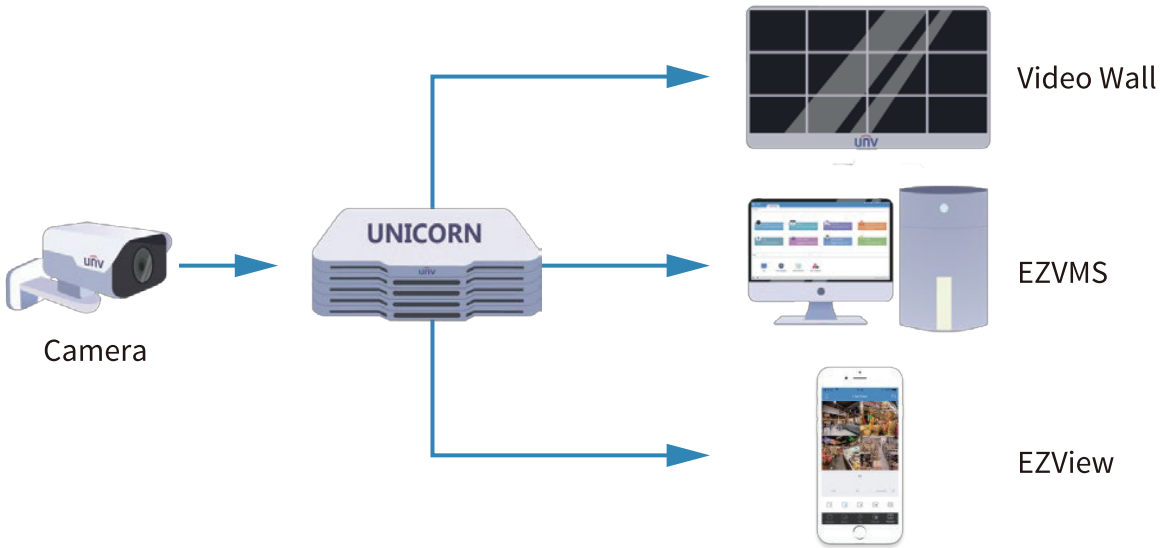
- To meet different storage preferences and needs, there are flexible storage modes options such as Local Storage and Centralized Storage. And storage modes options could be chosen based on the difference of priorities, such as reliability, cost effectiveness or better redundancy of important video recording backup.



- Video recordings can be watermarked with custom content to prevent video recordings from unauthorized editing.



- UNV Unicorn is designed with high transfer capabilities which enable multiple users to check live view or playback of the same camera through only one video channel of bandwidth transmission.



- Admin users can divide into different authority levels on security guards through manager authorization. Furthermore, admin users also can log out lower-level users to save resources if needed. In addition, admin users could lock users or set valid date and daily valid time of single user through remote operation.

BasicServiceSystem

OrganizationUserDeviceServer

User

Delete

Username	Role	Status	Operation
admin		Online	
testuser1	All	Offline	

Add

Username

Role

Password

Confirm Password

WeakMediumStrong

Optional

Name

ID No.

Email

Phone

Valid Date

Daily Valid Period

Remarks

OK

Cancel



Smart Search & VCA Search

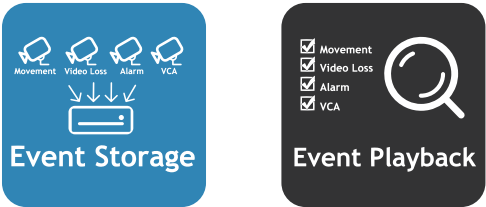
Specifying a target area and using smart search would only take a few seconds to find desired video recordings, which could save time and cost greatly.

VCA Search supports search models based on Behavior, Face Detection and People Counting. All different search modes are designed to find desired video recordings easier and quicker.



Event Storage & Event Playback

Event Storage function can significantly optimize storage space usage by storing video recordings on the basis of event type such as Movement Detection, Video Loss, Alarm Input and VCA Search. It also supports corresponding playback search modes on the basis of above event types.



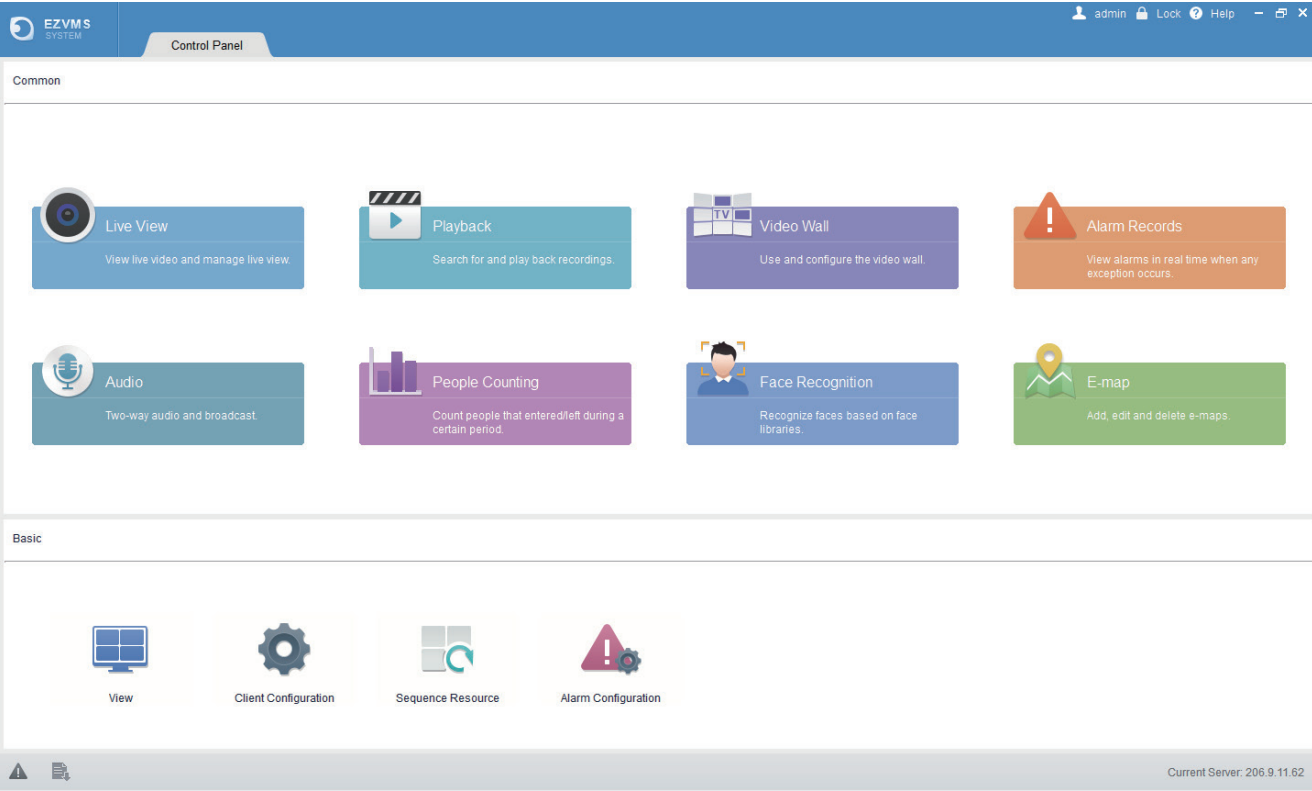
EZVMS Management Platform/EZVMS

UNV Unicorn is a smart integrated surveillance platform with strong video management, decoding, storing and transfer capabilities.

- UNV Unicorn can manage hundreds of NVRs, with thousands channels of IP Cameras.
- UNV Unicorn supports Master & Slave Modes which have double storage and data transfer abilities, and users can easily control the Slave Unicorn device through Master Unicorn device.
- UNV Unicorn can configure Video Wall function without additional decoders.



EZVMS is a reliable and easy-to-use management platform designed for UNV Unicorn. Its flexible and feature-rich interface helps security guards and campus managers verify alarms and coordinate a response more efficient and more easier.



- EZVMS supports Video Tags to mark important video recordings so that they can be easily searched and properly categorized.
- EZVMS supports Overwrite Protection to protect important video recordings from accidental deletion or overwriting.



- EZVMS supports flashing alarms on E-maps and links live view on a video wall. It enables security guards to locate alarming area quicker, which significantly shortens their response time.



- Integrated with EZAgent, EZVMS is compatible with third-party access control.  
Currently the EZAgent supports mainstream manufactures which produce alarm products such as Honeywell, Bosch, Paradox, Hikvision etc., and supports access controller manufacturers such as Tyco, Peake, Das, Newabel etc.

*\*Note: For more detailed information of third-party access control manufactures supported by EZAgent, please contact local dealer or Uniview technical support team.*

This All-in-One Smart Management System includes sub-systems such as linked alarms, E-map, guard tour system, two-way audio and broadcast, device status monitoring, server statistics, query logs, vehicle management and third-party access control etc.

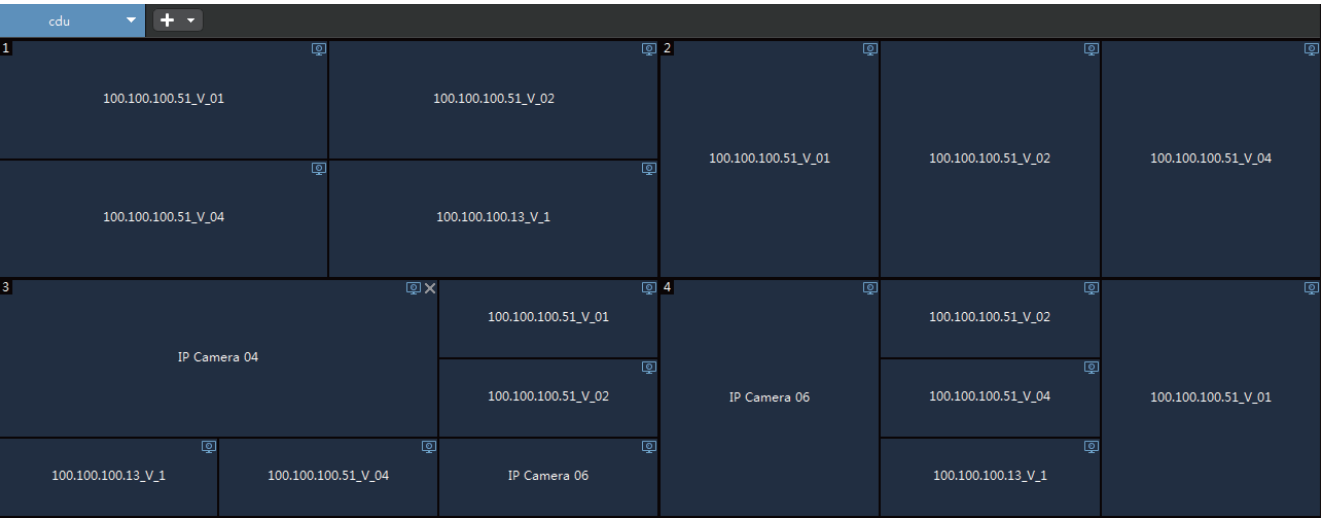


### Video Walls & Decoders

We provide various display size options on monitors, video walls and corresponding decoders. All UNV devices are designed and manufactured at highest standards to satisfy 24/7 constant monitoring requirements.



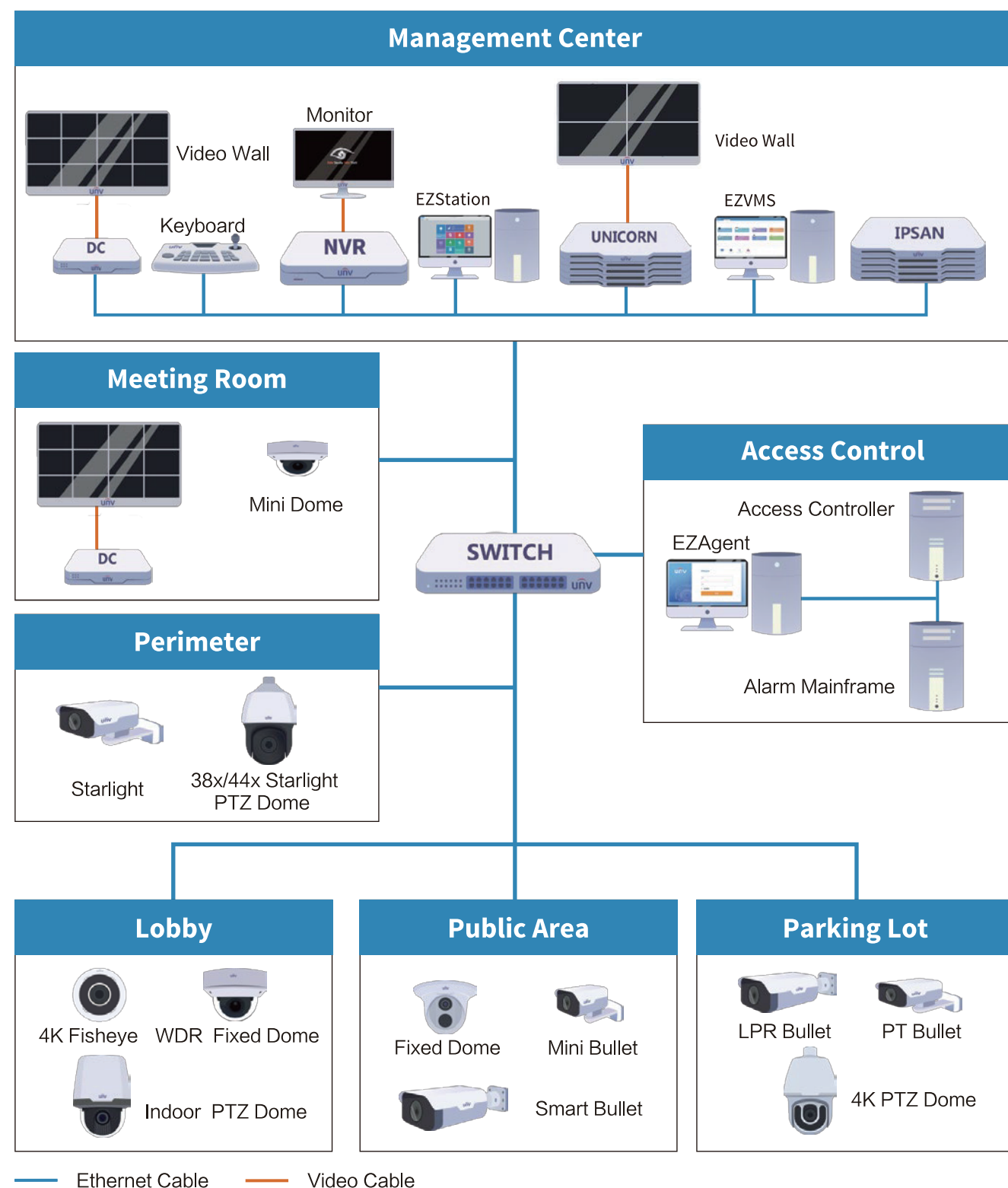
- UNV Decoders support to configure single screen windows with various display modes.



- UNV Decoders support DVI-D local input for displaying a PC screen on Video Wall.
- UNV Decoders are compatible with third-party device streaming via ONVIF protocol or private protocol (partly).



## SOLUTION NETWORKING



## CASE REFERENCE



### Belarus Solar Power Station

Uniview provided a corresponding video surveillance solution for Solar Power Station. All of UNV cameras have passed the test of Electronic Static Discharge and have CE certification, which are able to bear 4KV contact discharge and 8KV air discharge. In addition, UNV NVR with 32/64-ch strong decoding ability and redundant design and RAID ensure the highest level of data safety. Moreover, Uniview sets a perimeter protection for the station to detect intruder and intrusion behavior.



### Ecuador ECUATRAN S.A.

Uniview provided a comprehensive video surveillance solution for Ecuatran S.A. 4K fisheye camera and 33X PTZ dome camera will be offered to monitor a wide area. Furthermore, in order to maintain normal operation of cameras, Uniview provides electrostatic protect to prevent static interruption from transformer. Besides, a redundant design and RAID NVR are used for protecting data safety.



### Italy Comer Industry

Uniview offered a suitable video surveillance solutions for Comer Industry. 2MP 30x IR Network PTZ Dome Camera, 2MP Bullet and 4 SATA NVR are used for covering all over the workshop, outside of the factory and offices to ensure that manager could effectively monitor every corner of the company. Besides, the Long range PoE function brings convenience for manager, which greatly helped to install products easily.



### Serbia Factory Bekament

Uniview provided video surveillance solution including 150 cameras and NVR516 to monitor perimeter, warehouses and production process. Furthermore, Super NVR516 with plenty of channels and mass storage, RAID and N+1 Backup, up to 112-ch 1080P decoding ability was offered to storage relevant information.